

#627 1900
Some Information about the
Great Chinese Root

"SANG" OR GINSENG

(*Aralia quinquefolia*)

AND

CULTURAL DIRECTIONS

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American Ginseng



HE CULTIVATION of American Ginseng (*Aralia quinquefolia*) in this country is receiving much attention at the present time. That Ginseng can be grown successfully and with great profit if given proper conditions of soil and treatment, is now beyond question.

At the present time Ginseng commands a cash price in the open market of from \$4 to \$6.50 per pound for the dried wild root, while the cultivated root brings as high as \$8 to \$12 per pound.

To show how the price of Ginseng increased as the supply diminished, the following figures from reliable sources are quoted: In 1821, 352,992 pounds were exported at a value of \$171,786, or 48 cts. a pound, while in 1897, 179,573 pounds were exported at a value of \$840,686, or \$4.68 per pound.

This export consists almost entirely of wild roots, as only recently has the cultivation of Ginseng been successfully attempted in America, although it has been grown in China, Japan and Korea for a long time—the industry being a government monopoly in the latter country. It should be carefully noted that cultivated Ginseng always commands a very much higher price than the wild root, and very recently the price of all kinds has greatly advanced.

These figures conclusively show that the supply is entirely inadequate to the demand, and that the wild root is becoming scarcer each year. Eventually it must become a cultivated crop, but the fact that it takes from four to six years' growth before it is properly ready for the market will keep many from attempting its culture, though making returns larger and more sure for those who devote the necessary care and attention to its cultivation.

The extraordinary value of Ginseng being demonstrated, it only remains to be shown that its culture is comparatively simple and can be made a success.

The conditions may be stated in a few words: A rich, cool, loamy, loose soil, shade, and a heavy mulching of wood leaves or similar covering in autumn, which is left on during the next summer to decay and conserve moisture. Ginseng will thrive in almost any rich garden soil if given shade, either natural or artificial, moisture and constant cultivation.

This is the secret of growing Ginseng, and although there are many ways of applying the above principles, still if these points are

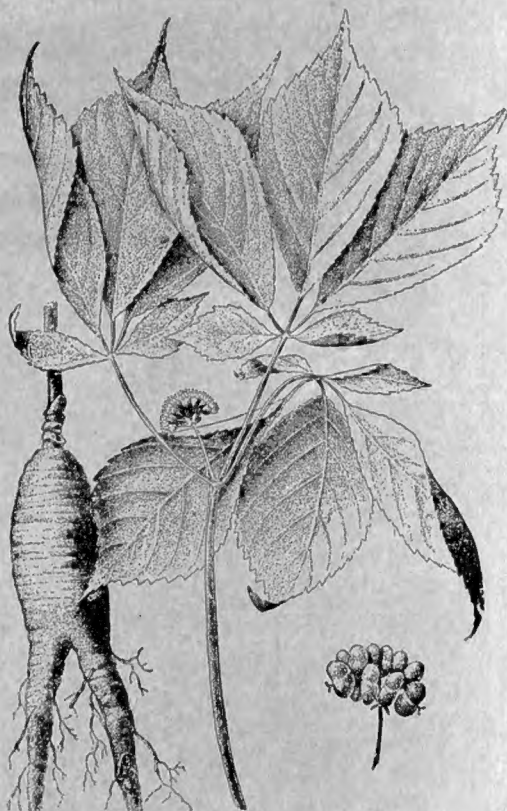


FIG. 1. American Ginseng.

Bull. 16, Div. of Publications, U. S. Dept. of Agr.

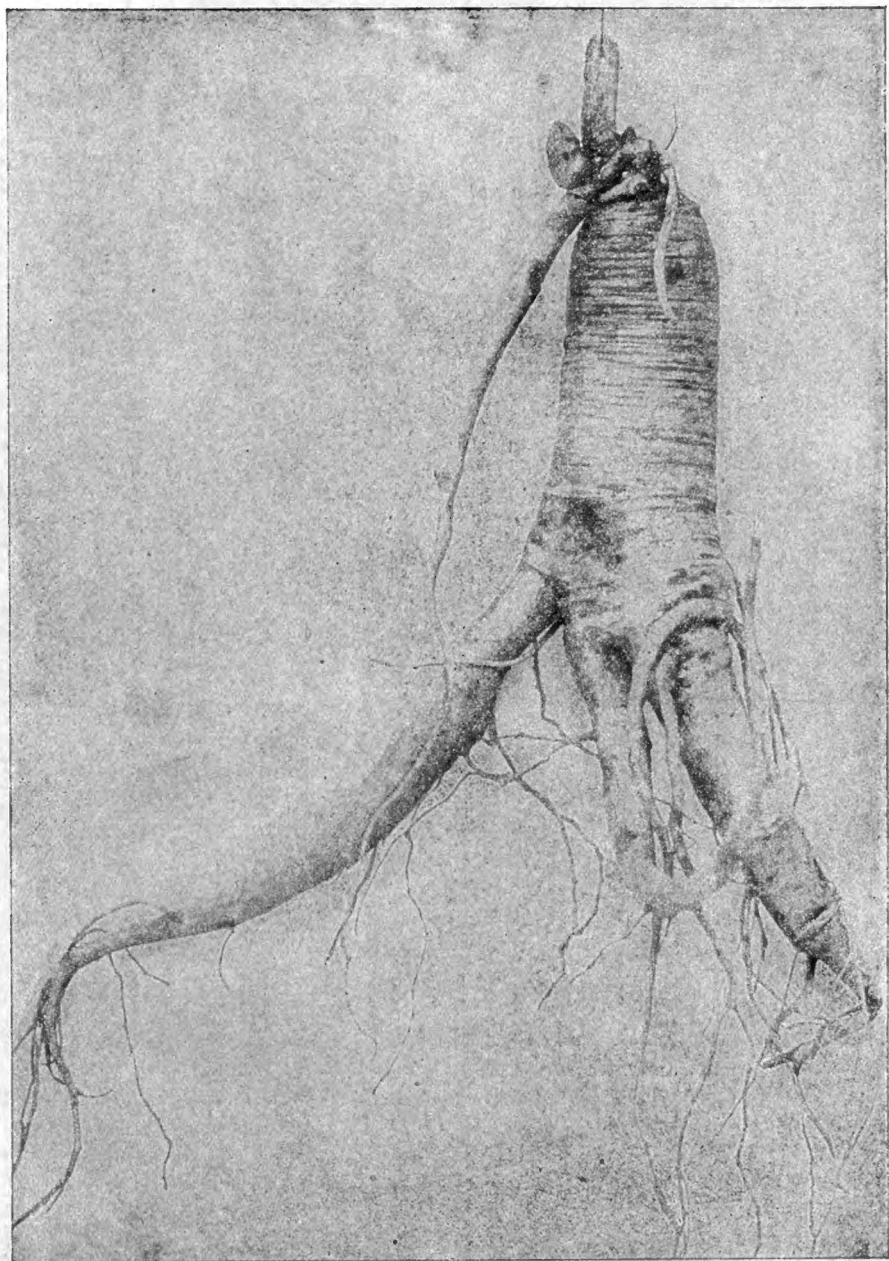


FIG. 2. A root of the fourth year, showing annual stem and bud at the top. Natural size.

(Bull. 78, Ky. Agr. Exp. Sta.)

kept in view there can be but little doubt of success; where the conditions do not exist naturally, they can usually be artificially furnished.

For those who intend planting on a large scale, the following suggestions will aid in making a proper start. First, where possible, select a cool, moist piece of ground, preferably level or nearly so, and where there is natural loam, or where the ground is loose and rich. Well-rotted stable manure is good for bringing up garden soil to a proper condition, as is also leaf-mold, rotted sods, etc. The ground must be fertile. Sandy soil, if rich and moist, is not objectionable, but rather desirable; but in any case, the drainage must be good.



FIG. 3. Fresh roots of Ginseng from cultivated plants: *a*, 1 year old; *b*, 2 years old; *c*, 3 years old; *d*, 4 years old; *e*, bud; *f*, leaf scar.

(Bull. 16, Div. of Publications, U. S. Dept. of Agr.)

Propagation from Seed.—There are about 8,000 Ginseng seeds to the pound. As it often takes eighteen months for the seeds to germinate if allowed to become dry, and as in this length of time there is danger of losing them from the depredations of field mice and ground squirrels, it is therefore wiser to stratify them for about twelve months and then plant out in beds. If, however, seeds are properly gathered and planted out before becoming dry, there is no reason why they should not sprout the following spring. To stratify the seeds, place a layer, say 3 inches deep, of moist sand or leaf-mold and loam over the bottom of a strong, tight box, then scatter a thin layer of seeds over this and cover with an inch of the sand or loam.

After filling the box in this manner, see that there are several inches of the covering over the last layer of seed, to prevent drying out. A wire netting of fine mesh should be securely tacked over all to prevent the attacks of mice. The whole should be kept in a moist cellar, or may be left out of doors if the box is plunged level to the top in soil.

In planting the seeds, they should be scattered evenly and thinly on a prepared bed and covered with an inch or more of fine soil. The planting being done in the fall (twelve months after the seeds are collected and stratified), they should then be covered with leaves and straw, or similar covering, over which brush is laid. In the early spring the brush is removed and lath shade covers substituted.

The beds may be made either 4 or 6 feet wide, and any length, and should always be surrounded by boards firmly nailed to posts, giving a rest for the lath shades.

The boards used are of ordinary inch boxing, and should extend 2 feet or more from the ground.

Where 6-foot-wide beds are made, the lath covers are made as shown in the illustration; viz., 4 by 6 feet. Ordinary laths are nailed 1 inch apart to 6-foot strips 1 inch thick and 2 inches wide, and then braced. Where the bed is made 4 feet wide, the laths are simply nailed to other laths with clinching nails. The latter size, being lighter, are the most easily handled covers, but the larger beds and shades are the most economical of room and lumber where the planting is on an extended scale. These lath covers are to stay on all summer, to be replaced by mulching and brush in winter. The beds and subsequent treatment after planting are the same for both seeds and plants.

Planting.—After the season's growth, the seedlings should be transplanted into permanent beds in the fall, after the tops have died down. Some prefer to wait till the second autumn, but the roots are more liable to be injured, and it is very important that a good, clean tap-root is preserved, making at maturity a larger and more salable article, that will command the best price.

A planting-board (see Fig. 7) is made of $\frac{3}{4}$ -inch white pine, or similar wood, 5 feet 9 inches or 3 feet 9 inches long, and 1 foot wide, to easily fit in the 4-foot and 6-foot beds.

This board is braced by light strips tacked across the ends and middle to



FIG. 4. Wild root (human form).
(Bull. Dept. of Agr., Penna.)

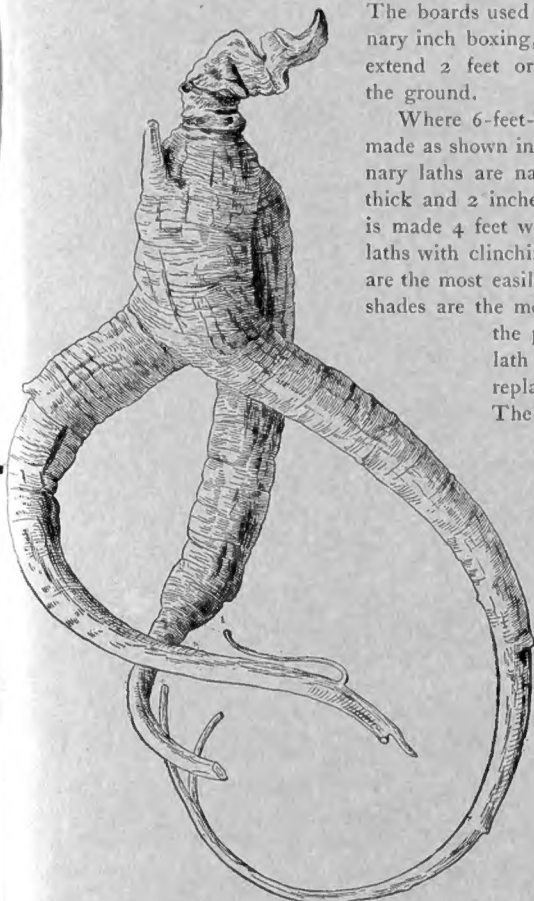


FIG. 5. Dried root of Ginseng from wild plant, ready for the market.
(Bull. 16, Div. of Publications, U. S. Dept. of Agr.)

prevent warping, and notches 5 inches apart are cut on the edges. A trench is then opened, by using a light spade and lifting the dirt away from the board, the back of the spade being flat against the edge of the board, on which the planter is standing.

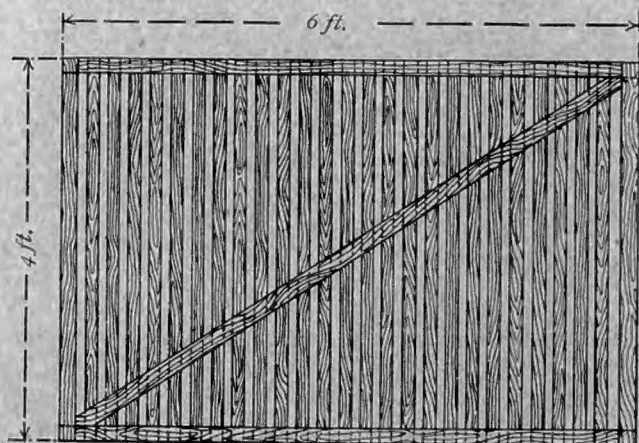


FIG. 6. Lath shade.

The plants are set at the 5-inch intervals, care being taken to see that the roots are in straight, and the crown at least an inch below the surface. Dirt is pulled in with the hand as each plant is set, and after firming the row with the foot, the bed is smoothed off with a fine-toothed rake. The middle of the board is then placed directly over the row, and the plant-

ing of the next row is proceeded with. This leaves the plants 5 by 6 inches apart, each row containing 15 plants in a 6-foot-wide bed. To find out the number of plants such a bed will hold, multiply the length of the bed in feet by 30.

Some prefer sowing the seeds singly in drills 2 or 3 inches apart, and at intervals of 1 to 2 inches apart in the row. In this event the same planting-board can be used, only the notches on one edge must be cut the required distance apart, the rows being 3 inches or less apart instead of 6 inches, as in the case of the plants. It is thus easy to figure out the area required for a given number of seeds.

As shown in the illustration (Fig. No. 8), the shading in summer may also be accomplished by raising the lath covering on a framework of scantling firmly attached to posts, and high enough to permit of standing under it.

The beds, however, should be boxed in as before noted, and on the approach of winter the sections of lath covering are removed to a barn or other dry place. This makes a rather elaborate structure, but is really preferable to the beds being covered individually, allowing cultivation without handling of the shades. Each spring the beds should receive a fine dressing of very rich loam, which is to be scattered over the old leaf mulching. But all the weeds must be pulled out as they appear, and the spaces between the rows kept stirred up loose with a small hoe or weeder, great care being taken not to strike and injure the roots or tops.

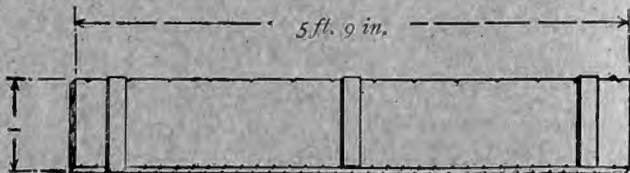


FIG. 7. Planting-board.

As the seed ripens it should be collected immediately and stratified as before mentioned, or planted out.

Ginseng can be grown under the shade of trees, but this method is not so satisfactory as the cultivation under artificial covering, and on a large scale is not recommended.

In any event, where possible, the Ginseng garden should be planted on ground sheltered from strong, prevailing winds.

Preparing for Market.—After the roots are of sufficient size, that is, from 3 to 5 ounces or more in weight, green, dig very carefully, without bruising or breaking, and after washing perfectly clean in fresh water, place on wooden trays or boards to dry—in the sun where possible. Or the roots may be spread evenly and thinly on trays in a warm room. Too rapid drying is not desirable, and where the quantity to be dried is considerable it would pay to buy a small evaporator. It takes about 3 pounds of green root to make 1 pound of perfectly dry marketable article, and all extra care taken in its preparation for the market will be well repaid in the increased price obtained. Sell only to reliable dealers who are willing to pay a proper price for an unlimited amount of the product. A list of these will be sent on application.

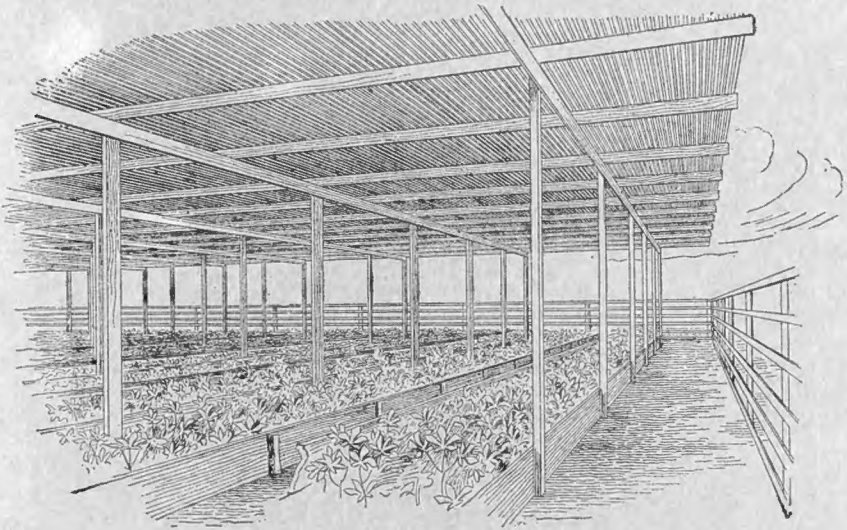


FIG. 8. Ginseng growing under lath shed.

The small, fibrous rootlets should be cleaned off during the drying process, as a better price is commanded for large, smooth roots. After making sure that the roots are perfectly dry, cool off, and weigh out at once in paper sacks of one to two pounds, finally packing in clean boxes of ten to twenty-five sacks each. If it is undesirable to dispose of the dried root at once, it would be best to pack in air-tight glass jars or seal in tins, to prevent damage caused by the boring beetle, which is said to attack it.

The roots, also, should be carefully graded according to size, appearance and weight, and marked accordingly on the outside of the packages before shipping.

The best markets are New York, Cincinnati and San Francisco, from whence almost the entire product is shipped to China, whose people value it as a panacea for nearly all human ills.

With these instructions followed, success should be made of growing Ginseng, and the element of profit is so large as to be rather startling.

The greatest discouragement in growing Ginseng is the depredations of thieves. The root is so extremely valuable that if the location of a plantation is generally known, the crop would stand but little chance of maturing without at least a part being stolen.

Unless secrecy can be maintained it will pay, as a rule, to erect a high solid wall with barbed wire on top. An electric wire can be arranged around the plantation at little cost, which will ring a bell or bells located where desired if an entry be forced.

Any very valuable article finds ready thieves if unprotected—Ginseng being no exception to the rule—but it is amply worth any expense incurred in protecting it.

To conclude, it will be observed that with ordinary attention to details Ginseng can be grown with large and sure profits.

Any questions that may arise are always gladly answered.

It seems probable that Ginseng can be grown in every state of the Union if the required conditions naturally exist, or are produced artificially, as it is found wild in perhaps thirty states.

A map (Fig. No. 9) showing the natural range of the Ginseng plant in the United States, prepared by the United States Department of Agriculture, is given below.

Ginseng is probably sparingly found growing wild in other states, and at one time was abundant in Ontario and Quebec, but has now become rather scarce, as it has been so energetically hunted by native "sang" diggers. This is the reason, also, for its present rarity in the United States.



FIG. 9. Map showing the natural range of the Ginseng plant in the United States.
(Prepared by the U. S. Dept. of Agriculture.)

Prices of Seeds and Roots, and Cost of Starting a Ginseng Garden.

Plants are graded in four sizes, and prices will be gladly sent on application if not attached to this circular. Special prices on large quantities. Orders for seed taken conditionally, and fulfilment not guaranteed, as present means of securing supply is extremely limited. Our prices are always as low as possible and far below the prices of others who are dealers only, not growing their own stock.

Orders should be placed at once, and shipment can usually be made at any time from August till April. Stock will be reserved only when cash accompanies order.

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